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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,029	12/16/2003	Daniel SauFu Mui	ZIL-568	4506
47713	7590	06/06/2006	EXAMINER	
SILICON EDGE LAW GROUP LLP 6601 KOLL CENTER PARKWAY, SUITE 245 PLEASANTON, CA 94566			BROWN, VERNAL U	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicant No.	Applicant(s)
	10/737,029	MUI, DANIEL SAUFU
	Examiner Vernal U. Brown	Art Unit 2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 16 December 2003.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10,13-16,18-24 is/are rejected.
- 7) Claim(s) 11,12 and 17 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

<ol style="list-style-type: none"> <li>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3)<input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.</li> </ol>	<ol style="list-style-type: none"> <li>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.</li> <li>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6)<input type="checkbox"/> Other: _____.</li> </ol>
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## DETAILED ACTION

The application of Daniel SauFu Mui filed 12/16/2003 for Relaying key Code Signals Through a remote Control Device has been examined. Claims 1-24 are pending.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pope US Patent 5963624.

Regarding claim 19, Pope teaches generator 12 for generating key code for controlling different consumer devices (col. 3 lines 35-40, figure 1) and teaches storing key codes (code set) on the key code generator (col. 5 lines 7-11). Pope teaches the base unit (code generator) transmit control codes to a plurality of consumer devices (figure 1) inherently including a first and second code. Pope teaches an IR transmitter 87 for relaying the key codes to the consumer devices (col. 3 lines 41-45). The codes are stored in the memory of the base unit (code generator)

and is therefore not stored in the means (IR transmitter) for transmitting the key code signal to the consumer devices.

Regarding claim 20, Pope teaches channel selection included in the function of the remote control (col. 1 lines 59-63).

Claim 13-16, 22, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Wouters et al. US Patent 6915109.

Regarding claims 13 and 22, Wouters et al. teaches a device comprising a receiver receiving a RF modulated remote control signal (col. 4 lines 25-28) and a transmitter transmitting an infrared modulated signal generated from the received RF signal (col. 4 lines 28-33). Wouters et al. also teaches the key code corresponding to the key of keypad is transmitted when the key is selected (col. 4 lines 48-57).

Regarding claims 14-16, Wouters et al. teaches the key code corresponding to the key of keypad is transmitted when the key is selected (col. 4 lines 48-57). A key code corresponding to a second and third key code is therefore transmitted based on the selected key. Wouters et al. teaches fetching the data from memory corresponding to the key code (col. 4 lines 55-58). The data from the memory is inherently stored as binary data. The key code therefore comprises binary data.

Regarding claim 24, Wouters et al. teaches a microcontroller in the form of a microprocessor for receiving the key code (col. 4 lines 52-55).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342.

Regarding claim 1, Pope teaches receiving a keystroke indicator signal which contains an indication of a key on the remote control device 10 that was pressed (col. 2 lines 61-col. 3 line 19), generating a key code (codes for communicating the control function to the appliances) within the code generator 12 and transmitting the key codes to the appliances (col. 3 lines 35-40). Pope is however silent on teaching modulating the key code onto a carrier signal. McNair et al. in an art related control system teaches the control signal is modulated and transmitted to the controlled apparatus as a conventional practice (col. 2 lines 61-65).

It would have been obvious to one of ordinary skill in the art to modulate the key code onto a carrier signal in Pope because modulation of the key code enables the key code signal to be transmitted wirelessly to the appliances and this also represents a conventional practice.

Regarding claim 3, Pope teaches the key code generator 12 transmitting key code signal (control codes) to the consumer devices (col. 3 lines 35-40).

Regarding claim 4, Pope teaches the key code is indicated by low and high (col. 3 lines 45-47) implying the key code signal include ones and zeroes.

Regarding claim 9, Pope teaches the code generated by the code generator 12 is transmitted to the appliances (col. 3 lines 36-40). The code generated by the code generator is not stored in the remote control because it is transmitted to the appliances.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Goldstein US Patent 5410326.

Regarding claim 2, Pope teaches the remote control receiving key code signals (infrared control signal) from a controller (col. 4 lines 52-56) but is silent on teaching the key code generator transmit key codes to the remote control device. Goldstein in an art related programmable remote control invention teaches a key code generator in the form of a cable box (cable box is considered a key code generator, see page 3 lines 4-5 of the applicant's specification) transmitting key codes to the remote control (col. 13 lines 50-57) in order to update the remote control with new control codes.

It would have been obvious to one of ordinary skill in the art for the key code generator to transmit the key code to the remote control in Pope in view of McNair et al. because this provides the means for updating the remote control with new codes.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Teskey US Patent 6747568.

Regarding claim 5, Pope teaches generating a key code for controlling the consumer appliances (col. 3 lines 35-40) but is silent on teaching the key code comprises timing information defining the binary number is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include comprises timing information defining the binary number is modulated in Pope in view of McNair because the timing information defining the binary number is modulated represent information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Regarding claim 10, Pope teaches generating a key code for controlling the consumer appliances (col. 3 lines 35-40) but is silent on teaching the key code comprises timing information defining the binary number (ones and zeroes) is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include comprises timing information defining the binary number is modulated in Pope in view of McNair because the timing information defining the binary number is modulated represent

information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of August et al. US Patent 5671267.

Regarding claim 6, Pope teaches the use of the remote control to control the functions of the appliances (col. 2 line 61-col. 3 line 22) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that a remote control is generally used in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Pope in view of McNair because Pope suggests the use of the remote control to control the functions of the appliances and one skill in the art recognizes that a remote control is generally used in turning an appliance on/off and is further evidenced by August et al.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Wouster et al. US Patent 6915109

Regarding claim 7, Pope teaches the remote control receiving key code signals (infrared control signal) from a controller (col. 4 lines 52-56) and the remote control transmits control signal to the appliances (figure 1) but is silent on teaching modulating the key code onto carrier

signal that is in the infrared frequency band. Wouters et al. in an art related remote control invention teaches a remote control receiving a RF modulated remote control signal (col. 4 lines 25-28) and a transmitter transmitting an infrared modulated signal generated from the received RF signal (col. 4 lines 28-33).

It would have been obvious to one of ordinary skill in the art to modulate the key code onto carrier signal that is in the infrared frequency band in Pope in view of McNair because infrared signal represents an alternative to radio signal used in the transmission of remote control signal.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 in view of Wouster et al. US Patent 6915109 and further in view of August et al. US Patent 5671267.

Regarding claim 8, Pope teaches the use of the remote control to control the functions of the appliances (col. 2 line 61-col. 3 line 22) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that a remote control is generally used in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Pope in view of McNair in view of Yamaguchi because Pope suggests the use of the remote control to control the functions of the appliances and one skilled in the art recognizes that a remote control is generally used in turning an appliance on/off and is further evidenced by August et al.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. US Patent 6915109 in view of Teskey US Patent 6747568.

Regarding claim 18, Wouters et al. teaches the remote control transmit command codes to perform various functions (col. 4 lines 4 lines 48-57). Wouters is silent on teaching the key code comprises timing information defining the binary number is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include timing information defining the binary number is modulated in Wouters et al. because the timing information defining the binary number represents information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of August et al. US Patent 5671267.

Regarding claim 6, Pope teaches the use of the remote control to control the functions of the appliances (col. 2 line 61-col. 3 line 22) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Pope because Pope suggests the use of the remote control to control the functions of the appliances and one skilled in the art recognizes that a remote control is generally used in turning an appliance on/off and is further evidenced by August et al.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. US Patent 6915109 in view of Pope US Patent 5963624.

Regarding claim 23, Wouters teaches transmitting key codes to remote control (see response to claim 13) but is not explicit in teaching the key code is not stored on the remote control prior to the remote control receiving the key code. Pope in an art related remote control teaches the remote control receiving control codes updates (col. 4 lines 52-60). The receipt of the code update by the remote control implies that the code was not previously stored in the remote control prior transmitting the updates to the remote controller.

It would have been obvious to one of ordinary skill in the art for the key code is not stored on the remote control prior to the remote control receiving the key code because the key codes transmitted to the remote control is used as a means of programming the remote control with new codes.

#### ***Allowable Subject Matter***

Claims 11-12 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 11-12, the prior art of record fail to teach or suggests no more than a single one of the key codes is present on the remote control at any given time.

Regarding claim 17, the prior art of record fail to teach or suggests the first and second key code are not stored in the device at the same time.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown  
May 10, 2006



BRIAN ZIMMERMAN  
PRIMARY EXAMINER